

Office Action Summary	Application No. 10/507,333	Applicant(s) TIRRY ET AL.	
	Examiner Dac V. Ha	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horner et al.(US 5,357,544) (hereafter Horner) in view of Wildhagen (US 7,295,631).

Re claim 1, Horner discloses:

“a tuning arrangement” (Fig. 2, element 14)

“a demodulator circuit for supplying a stereo multiplex signal with a baseband stereo sum signal (L+R), a 19 kHz stereo pilot and a stereo difference signal (L-R) double-sideband amplitude-modulated on a blanked 38 kHz subcarrier” (Fig. 2, element 16; Fig. 1; col. 1, lines 27-47)

“a sampling arrangement for converting an analog signal into a time-discrete signal” (Fig. 2, element 18)

“a stereo decoder with a filter and a phase-locked loop comprising an oscillator” (Fig. 2, elements 20, 22, 24; col. 3, line 66 - col. 5, line 15).

Horner differs from the claimed invention in that Horner does not disclose “filter operations can be performed in a complex range.” However, in the same filed of

endeavor, Wildhagen discloses that filtering stereo signal can be performed in complex range in Abstract; col. 1, lines 29-47). Implementing a filter for operation in complex range could be difficult and complex, however, there is tradeoff. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate such filter from Wildhagen into Horner as application and design specific/preference.

Re claim 2, the claimed subject matter "the filter is complex" would have been a requirement of the aforementioned combination.

Re claim 3, the claimed subject matter "the complex filter is a finite impulse response filter" would have been easily realized by one skilled in the art as optional (see Kelly - 5,870,402 as an example, but not relied on for the rejection).

Re claim 4, the claimed subject matter "the oscillator is discrete-controlled" would have been obvious to one skilled in the art based on the aforementioned as design specific.

Re claim 5, the claimed subject matter "the oscillator supplies a complex signal" would have been easily realized by one skilled in the art when complex operated-filter from Wildhagen is combined into Horner.

Re claim 6, Horner further discloses "the oscillator supplies a cosine signal and a sine signal" in Fig. 2, element 28; col. 5, lines 20-40.

Re claim 7, the claimed subject matter "the oscillator a limit-stable oscillating filter" would have been obvious to one skilled in the as design specific.

Re claim 8, Horner further discloses "the oscillator controls a modulator" in Fig. 2, element 26.

Re claims 9-14, these claimed subject matter would have been easily realized by one skilled in the art as application/design specific based on the aforementioned combination.

Re claim 15, see claim 1 above. Further, "converting the signals from complex signals to real signals" would also have been obvious to one skilled in the art as the final useful signals.

Re claims 16-18, these claimed subject matter would have been easily realized by one skilled in the art as application specific.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kelley (US 5,870,402)

Therssen et al. (US 5,257,312)

Mehrgardt (US 4,709,270)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 571-272-3040. The examiner can normally be reached on 4/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Payne can be reached on 571-272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dac V. Ha
Primary Examiner
Art Unit 2611